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A new genus of jumping-plant lice of the family Triozidae (Hemiptera: Psylloidea)

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ABSTRACT. A new genus *Neorhinopsylla* n. gen. is described. To the new genus the following species are transferred: *Neorhinopsylla machilae* (Li, 1993) n. comb., *N. shuiiensis* (YANG, 1984) n. comb., *N. spatulata* (Li, 1993) n. comb., *N. stylata* (CRAWFORD, 1912) n. comb., *N. taishanica* (Li, 1992) n. comb., and *N. takahashii* (BOSSELLI, 1930) n. comb.. Pictures of head, thorax, forewing, hind wing and female terminalia are given. A key to the species of *Neorhinopsylla* n. gen. is also provided. *Triozia caldweli* (TUTHILL, 1944) should be placed in *Bactericera* n. comb.

Key words: entomology, taxonomy, Hemiptera, Sternorrhyncha, Psylloidea, *Neorhinopsylla*, new genus, new combinations.

INTRODUCTION

The only descriptions of the genus *Rhinopsylla* RILEY, 1883 s. lat. are to be found in RILEY (1883), TUTHILL (1950), and BROWN & HODKINSON (1988). They are incomplete as they base exclusively on American species and ignore insects living elsewhere, or, as in the case of RILEY's (1883) paper, rely only on the type species. A cladistic analysis of morphological characters conducted for all the twelve species belonging to the genus *Rhinopsylla* RILEY, 1883 s. lat. has shown that they do not form a monophyletic taxon (DROHOJOWSKA 2003). In view of the existing differences a new generic taxon has been formed, *Neorhinopsylla* n. gen., to which seven species of the former genus *Rhinopsylla* RILEY, 1883 s. lat. have been transferred.

The analysis has confirmed BURCKHARDT and LAUTERER'S (1997) earlier suggestions that four species of the former genus *Rhinopsylla* RILEY, 1883 s. lat. –

Bactericera schwarzii (RILEY, 1883), *B. antennata* (CRAWFORD, 1911), *B. arcuata* (TUTHILL, 1942) and *B. athenae* (CRAWFORD, 1914) – belong to the genus *Bactericera* PUTON and that *Trioza caldweli* (TUTHILL, 1944) should be placed in *Bactericera* PUTON [*Bactericera caldweli* (TUTHILL, 1944) **comb. nov.**].

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TAXONOMY

Neorhinopsylla n. gen.

TYPE SPECIES

Rhinopsylla hidakensis MIYATAKE, 1972.

ETYMOLOGY

Since the genus houses seven species of the former genus *Rhinopsylla* RILEY, the name *Neorhinopsylla* was coined for the new taxon; gender feminine.

DIAGNOSIS

Neorhinopsylla is close to *Bactericera* PUTON, from which it differs in rectangular vertex, total absence of genal cones (in some species of *Bactericera* they may appear), almost vertical position of pronotum, which results in the head being markedly tilted in relation to the rest of the body, the anterior margin of mesopraescutum gently rounded, arcuate, and bigger and wider forewings, widest in 2/3 of their length (in *Bactericera* forewings are widest in the midpoint) and gently rounded at the end. Metatibiae do not bear spines at the base, but in the distal part they have apical spines arranged in a 3+1 pattern (in *Bactericera* the arrangement is always 2+1).

DESCRIPTION

Body 2-5 mm long, covered with fine setae.

Head always slightly narrower than thorax, somewhat tilted in relation to the main body axis (Fig. 3) and covered with setae on the whole surface. Head and vertex rectangular. Vertex 1.5-2 times as wide as long, depressed in the middle at the median suture. On both sides of the median suture there are two distinct sulci which run to the posterior margin of head and disappear before they reach the

anterior margin. Vertex elongated to form two projections directed slightly towards sides. Eyes big, on the sides of head (Fig. 1), frontal ocelli well visible. The area behind eyes elevated, the posterior margin smooth. Genal cones not developed, genae below antennal tubercles slightly swollen, covered with sparse, long setae. Antennal tubercles oblique in relation to the head axis, in top view distinctly separated from vertex. Median ocellus very well visible, placed between and in line with antennal tubercles. Antennae more than twice as long as the width of head.

Thorax big, strongly arcuate, covered with setae. Pronotum vertical (Fig. 3). The anterior margin of mesopraescutum gently arcuate (Fig. 4) Mesonotum rounded at the anterior margin, mesoscutum elongated forwards, collar-shaped. Mesoscutellum small, rectangular.

Forewings big, wide, membranous, transparent, without spots, more than twice (2.2-2.9 times) as long as wide, widest in 2/3 of their length, rounded at the posterior margin, without a distinct apex (Fig. 2). Pterostigma absent, venation typical of the family Trioziidae, with veins R, M and Cu branching at the same point. Vein Rs wavy, its terminal part forms a long radial sector, vein Cu₁ gently bent. Cells cu₁, m₁ and m₂ with spines (Fig. 2).

Hind wings big, 1.2-2.0 mm long, 0.7 times as long as forewings, 2.7-2.8 times as long as wide, widest in the midpoint (Fig. 5). I-type venation (KLIMASZEWSKI 1993) with basal vein (R+M+Cu₁) branching into radial-medial and cubital veins. Wing apex between veins R and M, closer to medial vein. Radial vein in the distal portion markedly raised, which gives the impression of diverging from medial vein. Medial and cubital veins straight.

Legs long, thin, covered with setae. Metacoxae large, with long, narrow, triangular, protruding meracanthi. Metatibiae with 4 black spines in the apical part, 3 on the inner and 1 on the outer surface (Fig. 6). No spines at the base of tibia. Basal segment of tarsus longer than apical.

Female genitalia long, covered with sparse setae, narrow and pointed (Fig. 8), hood-shaped. Genital plates almost even or dorsal plate longer than ventral one. Dorsal plate tapering in the distal half, may be slightly elevated. Anal ring extends over 1/4-1/3 of the length of the plate. Ventral plate wide at base, always pointed at apex, may be elevated.

Male genitalia with large anal cone covered with setae. In side view, anal cone thick, curved at the anterior margin, with the middle part of the posterior margin protruding in the direction of cauda. Parameres long and thick, variously shaped, with the inner surface covered with numerous strong, stiff setae. Aedeagus long, with the first segment markedly longer than the second, expanded at the end. Hypandrium almost triangular, sparsely covered with setae.

DISTRIBUTION

Species of the genus *Neorhinopsylla* live in Taiwan, Japan and India, also in Russia and China.

KEY TO THE SPECIES OF *NEORHINOPSYLLA* N. GEN.

1. Ratio of the length of forewings to the width of head over 7 *N. hidakensis*
- Ratio of the length of forewings to the width of head below 7 2.
2. Veins on forewings covered with setae (Fig. 7) *N. shuiliensis*
- Veins on forewing without setae 3.
3. Forewings not longer than 3 mm and narrower than 1.2 mm 4.
- Forewings longer than 3 mm and wider than 1.2 mm 5.
4. Length to width ratio of hind wings below 2.5; ventral plate of ovipositor in female with a plug-shaped spine (Fig. 8); cell m_1 coefficient 2 *N. stylata*
- Length to width ratio of hind wings over 3; ventral plate of ovipositor in female without a spine; cell m_1 coefficient 1 or less *N. takahashii*
5. Cell cu_1 coefficient on forewings over 1 *N. spatulata*
- Cell cu_1 coefficient on forewings 1 or less 6.
6. Female ovipositor short and wide at base; anal ring drop-shaped (Fig. 9); length to width ratio of hind wings over 3 *N. machilae*
- Ovipositor longer and narrower than in the above-mentioned species; anal ring of different shape (Fig. 10); length to width ratio of hind wings below 3 *N. taishanica*

Neorhinopsylla hidakensis (MIYATAKE, 1972) n. comb.

Rhinopsylla hidakensis MIYATAKE, 1972: 102.

Trioza hidakensis: BURCKHARDT, LAUTERER 1997: 115

MATERIAL EXAMINED

2 mm, 2 ♂♂ Primorye, Starobudskoe, leg. A. MUXEEB det. S.M. KLIMASZEWSKI, labels handwritten in Russian [PAS].

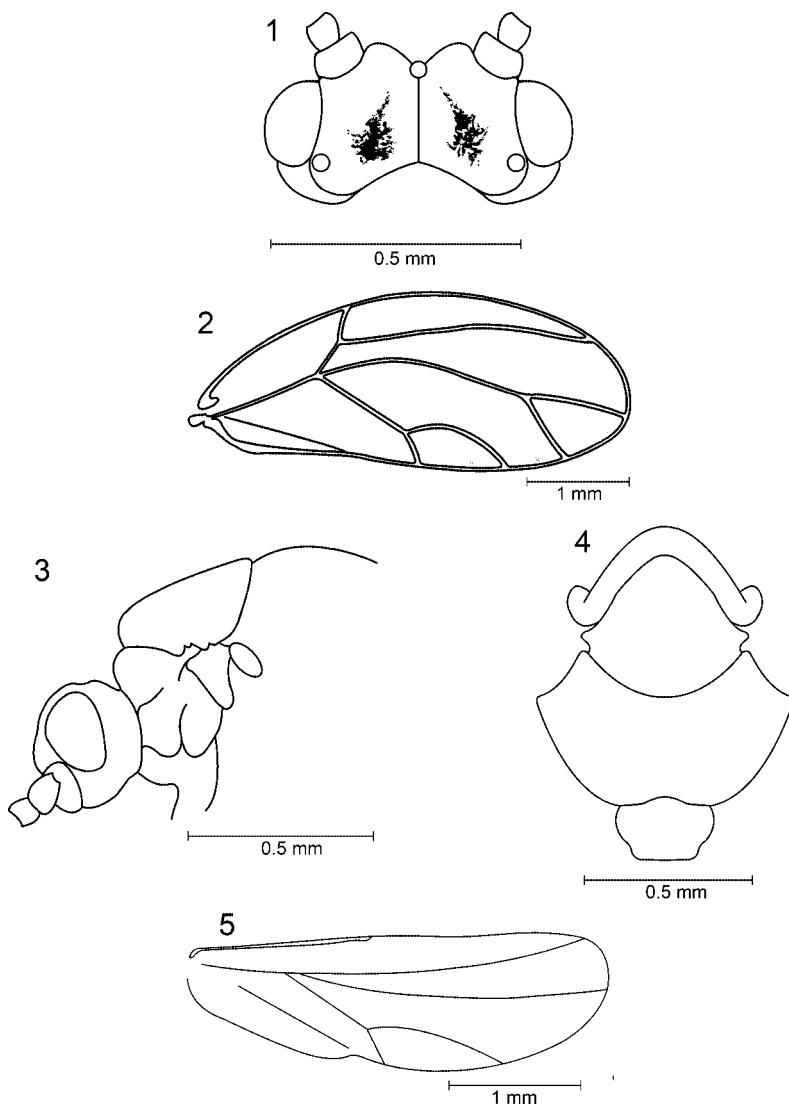
REDESCRIPTION

Body brown to dark brown or black in adult forms. Antennae blackish-brown or black, with two basal segments paler. Vertex dark brown or black, yellowish on the front. Pronotum yellowish-brown, may be tinged with orange, with a small brown spot on both sides. Praescutum and mesoscutum shining, black; in the middle, from the posterior margin of praescutum to the anterior margin of mesoscutum yellowish. Mesoscutellum and metathorax yellow to yellowish-brown. Legs yellowish-brown to brown, usually with darker stripes, except foretibiae, which are light brown.

Female markedly bigger than male, 3.5-4.1 mm long; male 3.2-3.5 mm long. Measurement from the apex of head to the end of wings in females 5.6 mm, in males up to 5.1 mm.

Head small, distinctly narrower than thorax, slightly tilted away from the main body axis (Fig. 3). Vertex deeply incised on the anterior margin, with two dents between the median line and the bulge of toruli, covered with long, sparse setae.

Genal cones not developed, head slightly swollen at the base of antennae, with long setae (Fig. 1). Antennae long, narrow, 2.6-2.7 times as long as the width of head, with short setae on the basal segment and with one long and one short seta on the apices of all segments. Length of antennae in females 2.1-2.3 mm, in males 1.9-2.2 mm.



1-5. *Neorhinopsylla hidakensis* (MIYATAKE): 1 - head, dorsal view; 2 - forewing, 3 - thorax, lateral view, 4 - thorax, dorsal view, 5 - hind wing

Thorax large, strongly arcuate, covered with setae. Pronotum almost vertical, below the level of praescutum and vertex (Fig. 3).

Forewings long and wide, 2.5-2.6 times as long as wide, slightly rounded at apex, with venation typical of Triozidae (Fig. 2). Forewings in females 4.3-4.6 mm long, 1.8-1.9 mm wide; in males markedly smaller, 3.9-4.1 mm long and 1.5-1.6 mm wide. Vein Rs 2.26 mm long, slightly raised distally. Vein R somewhat longer than R_1 (0.3 and 0.2 mm respectively). Medial vein gently arcuate, slightly raised in the anterior portion, 1.87 mm long, branching into two short veins: M_{1+2} (0.87 mm long) and somewhat shorter M_{3+4} (0.63 mm long). These two form cell m_1 , comparable in size to the other border cell cu_1 . Cell m_1 coefficient 0.36, cu_1 coefficient 1.35, both cells with marginal spinules. Cubital vein 0.9 mm long, straight, forking into vein Cu_{1a} of the same length (0.91 mm) and markedly shorter Cu_{1b} (0.24 mm).

Hind wings big, 2/3 times as long as forewings, 3.2 times as long as wide, with I-type venation (KLIMASZEWSKI 1993). Length of hind wing in females 3.0-3.2 mm, in males 2.6-2.8; width in females 0.9-1.0 mm, in males 0.8-1.0 mm (Fig. 5).

Legs long, covered with dense setae, metatibiae with one apical spine on the outer surface and 3 apical spines on the inner surface. Proximal metatarsal segment without the apical spine. Meracanthus large, protruding ventro-caudad, pointed at apex.

Abdomen (without genitalia) long, almost as long as thorax, only ventrally covered with dense setae.

Male genitalia small, 1/3 the length of abdomen. Anal cone long, 1.5 times as long as parameres, with the posterior margin distinctly protruding in the direction of cauda, covered with setae. Parameres thick and blunt, narrow at base, expanded apically, covered with sparse setae in the apical part. The inner surface with numerous strong, leaning setae. Aedeagus long, its characteristic apical part in the shape of a dilated hook, hypandrium almost triangular, covered with sparse setae.

Female genitalia big, 2/3 the length of abdomen. Dorsal plate markedly longer than ventral, in side view with the dorsal margin slightly convex in 2/3 of its length, tapering apically. Ventral plate on the side distinctly protruding ventrally in the middle of its length, pointed at apex. The whole surface of female ovipositor covered with setae.

HOST PLANT

Unknown.

DISTRIBUTION

Japan: Hokkaido (MIYATAKE 1972), the Far East (KLIMASZEWSKI 1983; GEGEKORI & LOGINOVA 1990), Primorskij Region and Starobudskoje (KLIMASZEWSKI 1983).

***Neorhinopsylla machilae* (Li, 1993) n. comb.**

Rhinopsylla machilae Li, 1993: 25.

Trioza machilae: BURCKHARDT & LAUTERER 1997: 115.

TYPE MATERIAL EXAMINED

Paratypes ♂ ♀. Rhi07, 1984-XI-1, labels handwritten in Chinese (ChAU).

REDESCRIPTION

Head dark brown. Elongated fragments of vertex paler, antennal tubercles pale yellow. Antennae dark yellow, first three segments pale, fourth segment dim at apex, other segments also darker at apices, eighth, ninth and tenth segments dark. Pronotum and thoracic pleurites yellow. Mesopraescutum brown, shining, in the middle slightly paler and rusty, on sides and towards the bottom gradually darker. Mesoscutum of the same colour as mesopraescutum, mesoscutellum markedly paler than mesoscutum, dim yellow. Wings membranous, without spots, transparent, venation brown. Legs yellowish-brown, terminal segments of tarsus brown. Whole abdomen brown.

Head big, rectangular, 0.78 mm wide, without a distinct cleft on the front. Head in the shape of a large rectangle, width of vertex 0.5 mm, length 0.28 mm. Eyes positioned laterally. Antennae inserted below vertex. In top view, antennal tubercles distinctly separated from vertex. In top view, the anterior portion of vertex appears chopped vertically, both in the front and at the back. In front view, the elongated part of vertex descends vertically and combines with the rest of vertex almost at the right angle. Median ocellus very well visible, placed between and in line with antennal tubercles. The whole head shining, covered with gentle setae, which are longer on the elongated portion of vertex and on two antennal segments. Antennal tubercles without setae. The elongated parts of vertex slightly arcuate, somewhat pointed, not sharp. On vertex there are two distinct, long sulci which run obliquely to the posterior margin of head and disappear before they reach the anterior margin.

Thorax typical in shape and position. Pronotum slightly narrower than the width of head with eyes, 0.6 mm wide and 0.14 mm long. Pronotal depression matches mesopraescutum in shape. Mesopraescutum wider than long (0.56 mm and 0.49 mm respectively), covered with single long, pale setae very sparsely scattered and present only near the anterior and posterior margins of mesopraescutum. Mesoscutum markedly wider than mesopraescutum (0.78 mm wide and 0.43 mm long), shining, with single pale setae like those on mesopraescutum, scattered only near the posterior margin and on the sides. Mesoscutellum narrower (0.31 mm wide) and shorter (0.24 mm long) than mesoscutum.

Wings membranous, transparent, 4.4 mm long, 1.88 mm wide, widest in 2/3 of their length, without a distinct apex. Posterior margin rounded. Vein Rs 2.1 mm long, not straight. Veins R and R_1 almost equal (0.3 mm and 0.35 mm long

respectively). Cell cu_1 relatively big, cu_1 coefficient 0.7; m_1 coefficient over twice as high, 1.46. Vein C+Sc 1.3 mm long, longer than vein Cu_1 which is 0.95 mm long.

Hind wings smaller than forewings, with I-type venation (KLIMASZEWSKI 1993), widest in the midpoint. Wing apex between veins R and M, closer to medial vein. Radial vein in the distal half raised.

Legs long. Spines on the apices of metatibiae typically arranged, no spines on the bases of metatibiae.

Male genitalia: hypandrium brown, anal cone and parameres dim yellow. Parameres wide at base, tapering at apices. Anal cone with a lobate process, thick, rounded at apex. Parameres and anal cone of the same size. Genitalia covered with setae.

Female genitalia short, ventral plate half the length of the preceding sternite, dorsal plate longer than ventral. Ventral plate pointed. Anal ring drop-shaped (Fig. 9).

Host plant

Machilus verchilus from Lauraceae (Li 1993).

DISTRIBUTION

China – Jianyang and Fujian Province (Li 1993).

Neorhinopsylla shuiliensis (YANG, 1984) n. comb.

Rhinopsylla shuiliensis YANG, 1984: 213.

Triozla shuiliensis: BURCKHARDT & LAUTERER 1997: 115.

MATERIAL EXAMINED

f m Rhi09, labels handwritten in Chinese [ChAU].

REDESCRIPTION

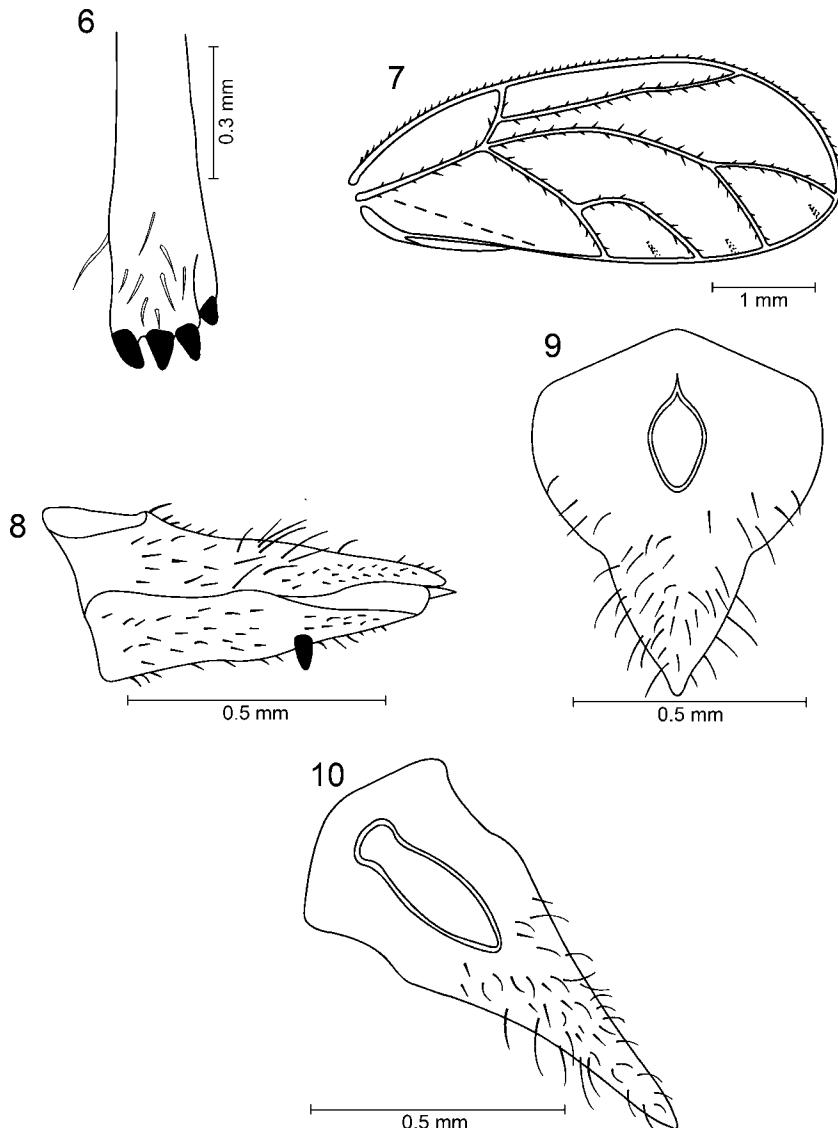
Body big and slender. Female bigger than male; female 3.47 mm long, male 3.13 mm long.

General body colour dark brown. Antennae yellowish-brown, apices of segments IV through VII and entire segment III black. Legs yellowish-brown, second tarsal segment dark brown to black. Dorsal portion of abdomen black. Wings membranous, venation yellow-brown.

Head small, markedly narrower than thorax, tilted, 0.9 mm wide in female and 0.83 mm wide in male. Vertex short, twice as wide as long, in top view deeply incised at the anterior margin, with a groove-like depression on each side of the median suture, slightly raised at hind ocelli. The sulci reach the posterior margin of head and disappear before the anterior margin. Antennae long (2.74 mm in female, 2.44 mm in male), three times as long as the width of head, with four sensoria: one on segments IV, VI, VIII and IX.

Thorax wide, strongly arcuate. Pronotum short, vertical, covered with setae. Anterior margin of mesopraescutum gently arcuate.

Forewings wide, 2.3 times as long as wide, rounded at apex, venation typical of Triozidae. Length of forewing in male and female 4.8 mm and 5.3 mm



6. *Neorhinopsylla taishanica* (Li), tibia of hind leg; 7. *N. shuiliensis* (Yang) after YANG 1984, forewing; 8. *N. stylata* (CRAWFORD) after MATHUR 1975, female terminalia, lateral view; 9. *N. machilae* (Li) after Li 1993, changed, female proctiger, dorsal view; 10. *N. taishanica* (Li) after Li 1993 changed, female proctiger, dorsal view

respectively. This is the only species of the genus which bears spinules on veins (Fig. 7). Vein Rs somewhat longer than M (2.4 mm and 2.2 mm long respectively), veins R and R_1 of approximately the same length, 0.25 mm and 0.3 mm long respectively. Costal-subcostal vein slightly arcuate, 1.3 mm long. Cubital vein 1 mm long, branching into two veins which form cell cu_1 , cu_1 coefficient 1.5. The other border cell m_1 with lower coefficient 1.25.

Hind wings big, 0.7 times as long as forewings, 2.8 times as long as wide, 3.46 mm long, 1.2 mm wide, with I-type venation (Klimaszewski 1993). Radial vein 2.26 mm long, in the terminal part markedly raised, which gives the impression of diverging from medial vein. Medial vein 2.6 mm long, straight; cubital vein also straight, 0.86 mm long.

Legs long, covered with setae. Metatibiae serrated basally, with 1 outer spine, 3 inner apical spines and a row of stiff bristles. Basal part of metatibiae without spines. Meracanthus big, protruding ventro-caudad, pointed at apex.

Abdomen long, with setae on the ventral surface.

Male genitalia with big anal cone (0.46 mm). Posterior margin of anal cone protruding in the direction of cauda, very wide and covered with setae. Aedeagus 0.36 mm long, with first segment almost straight, markedly longer than second segment. Parameres long and thick, 0.43 mm long, 0.9 times as long as anal cone, expanded at base and tapering in the apical half. Posterior margin of parameres with a long seta, the inner surface covered with numerous strong, stiff setae.

Female genitalia with thick dorsal plate tapering in the apical fourth, anal ring oval, 0.1 mm long. Ventral plate wide at base, pointed at apex. Dorsal plate longer than ventral one, 0.75 mm long and 0.56 mm long respectively.

HOST PLANT

Machilus kusanoi from Lauraceae (YANG 1984, HODKINSON 1986).

DISTRIBUTION

Taiwan (YANG 1984, HODKINSON 1986).

Neorhinopsylla spatulata (LI, 1993) n. comb.

Rhinopsylla spatulata LI, 1993: 26.

Trioza spatulata: BURCKHARDT & LAUTERER 1997: 115.

TYPE MATERIAL EXAMINED

Holotype ♀. Rhi03, label handwritten in Chinese [ChAU].

REDESCRIPTION

Body up to 4.75 mm long. Head big, covered with dense setae on the whole surface, antennal tubercles included. Width of head with eyes 0.69 mm. Vertex rectangular, 0.43 mm wide, 0.18 mm long, with two sulci running on both sides of

the median suture to the antero-lateral margin of head. Elongated portion of vertex forms two projections directed slightly towards sides. Eyes big, placed laterally.

Thorax strongly arcuate, covered with setae. Pronotum vertical. Anterior margin of mesopraescutum gently arcuate.

Wings membranous, without spots, 2.25 times as long as wide, widest in 2/3 of their length, big, 3.93 mm long, 1.75 mm wide, rounded, without a distinct apex. Vein R 0.42 mm long, vein R_1 shorter, 0.28 mm long. Vein Rs 2.3 mm long, bent in the distal half. Vein M_1 arcuate, raised, 2.1 mm long, more than twice as long as vein Cu_1 ; vein Cu_1 0.93 mm long. Cells cu_1 and m_1 of similar size, with visible spinules. Cell cu_1 coefficient 1.5, m_1 coefficient 1.2.

Hind wing 2.7 times as long as wide, 2.7 mm long, 1.0 mm wide, with I-type venation (KLIMASZEWSKI 1993). Vein R 1.96 mm long, slightly raised in the terminal part. Medial vein 1.9 mm long, almost parallel to radial vein except its rear section, where it is not raised. Cell cu_1 flat, big, cu_1 coefficient 3. Vein Cu short, 0.65 mm long.

Metatibiae with apical spines arranged in the 1+3 pattern.

Male genitalia described by LI (1993).

Female genitalia middle-sized, relatively wide. Dorsal plate longer than ventral one, rounded at apex, slightly raised. Ventral plate pointed, apex also raised. Circum-anal pore ring extends over 2/5 of the length of dorsal plate, elongated, widened at base of the plate.

Eggs oval, with a short, strongly bent foot.

HOST PLANT

Hippophae rhamnoides L. from Elaeagnaceae (Li 1993).

DISTRIBUTION

China – Xizang Region, altitude of 3050 m (Li 1993).

***Neorhinopsylla stylata* (CRAWFORD, 1912) n. comb.**

Rhinopsylla stylata CRAWFORD, 1912: 426.

Triozza stylata: BURCKHARDT & LATERER 1997: 115.

Description of the species given by CRAWFORD (1912) and redescription by MATHUR (1975).

DISTRIBUTION: India – lower parts of the Himalayas (CRAWFORD 1912, MATHUR 1975, HODKINSON 1986).

HOST PLANT: unknown.

***Neorhinopsylla taishanica* (LI, 1992) n. comb.**

Rhinopsylla taishanica LI, 1992: 146.

TYPE MATERIAL EXAMINED

Holotype \mathfrak{f} . Rhi04, label handwritten in Chinese [ChAU].

REDESCRIPTION

Body large, up to 5 mm long

Head big, 0.74 mm wide. Vertex rectangular, 0.42 mm wide, 0.19 mm long, covered with dense setae; setae below antennal tubercles longer. Anterior margin of vertex distinctly incised. Genal cones absent, but genae somewhat swollen. Antennal tubercles oblique in relation to the head axis. Antennae more than twice as long as the width of head. Median suture distinctly visible, sulci on both sides of the median suture very well visible but not deep. Eyes big, placed on sides of head, not shifted to the front. Area behind eyes slightly raised.

Thorax arcuate, almost as wide as head, pronotum narrow and almost vertical so that head is lowered, not in line with the body axis. Mesonotum rounded at the front margin, mesoscutum elongated frontally, collar-shaped. Mesoscutellum small, rectangular.

Forewings 2.4 times as long as wide, 4.33 mm long, 1.8 mm wide, widest in 2/3 of their length, without a distinct apex, rounded at the end. Vein Rs 2.9 mm long, not straight, in the terminal portion undulating. Vein R longer than vein R_1 , 0.36 mm long and 0.29 mm long respectively. Medial vein arcuate, 2.0-2.15 mm long, branching into two veins which form cell m_{1+2} ; cell m_1 coefficient 1.5, the other border cell with coefficient 1.0. Vein Cu_1 straight, short, 1.1 mm long.

Hind wings 2.7 times as long as wide, 2.98 mm long, 1.1 mm wide, widest in the midpoint, with I-type venation (KLIMASZEWSKI 1993). Wing apex between vein R and M , closer to medial vein. Radial vein raised in the distal half.

Metatibiae with four apical spines arranged in the 3+1 pattern (Fig. 6).

Female genitalia long, dorsal plate longer than ventral, both pointed. Dorsal plate slightly raised, covered with setae; anal ring extends over 1/3 of the length of the plate. Ventral plate raised, with a minor swelling in the middle.

Eggs elongated, tapering at apex, with a short, straight foot.

Male so far unknown and not described.

HOST PLANT

unknown.

DISTRIBUTION

China – Shandong Province (LI 1992).

Neorhinopsylla takahashii (BOSELLI, 1930) comb. n.

Rhinopsylla takahashii BOSELLI, 1930: 198.

Trioza takahashii: BURCKHARDT & LAUTERER 1997: 115.

MATERIAL EXAMINED

f Rhi08, label handwritten in Chinese [ChAU].

REDESCRIPTION

Body black, legs brown to black, metatibiae yellowish. Eyes blackish-brown. Wings colourless with yellowish-brown venation.

Length of the body 2.6 mm.

Head narrower than thorax, slightly tilted away from the main body axis. Width of head 0.6 mm. Vertex twice as wide as long, 0.36 mm wide, 0.2 mm long. In top view, head deeply incised at the front margin, depressed on both sides of the median suture in the rear section, raised at hind ocelli. On both sides of the median suture there are two sulci which run from the anterior to the posterior margin. Antennae long, narrow, 3 times as long as the width of head, 2 mm long, with four sensoria – one on segments IV, VI, VIII and IX. Basal segment markedly expanded, wider than the other segments except the first, which is twice as wide as the basal.

Thorax strongly arcuate, covered with setae. Pronotum vertical. Anterior margin of mesopraescutum gently arcuate.

Forewings large, about 2.5 times as long as wide, in female 3.16-3.5 mm long. Venation typical of Triozidae, Rs 1.6 mm long, winding, veins covered with small setae. Veins R and R_1 almost the same length, R 0.28 mm long, R_1 0.26 mm long. Vein Cu_1 more than 2.5 times as long as vein R , 0.72 mm long. Veins M_{3+4} and Cu_{1b} equal, 0.24 mm long, three times shorter than vein M_{1+2} , which is 0.72 mm long. Wings widest in 2/3 of their length, with rounded apex at the end of vein M_{1+2} . Cell cu_1 small and flat, cu_1 coefficient 1.48, m_1 coefficient 0.98.

Hind wings 0.7 times as long as forewings, 2.45 mm long, with I-type venation (KLIMASZEWSKI 1993). Vein M curved in the middle, raised slightly in the apical half. Vein R less markedly curved, gently arcuate, without distinct cracks. Vein Cu_{1a} almost straight, not raised, long. Vein Cu_{1b} branches from Cu_{1a} almost at a right angle.

Legs long, covered with setae, metatibiae serrated at base, with 1 outer and 3 inner spines and a row of stiff bristles; basal segment of tarsus without spines. Meracanthus big, protruding.

Female genitalia long, dorsal plate narrow, tapering in the apical part, 0.75 mm long. Ventral plate wide at base, pointed at apex, slightly concave, 0.67 mm long, gently arcuate, on the ventral side incised at base, with apex upturned. Dorsal plate also weakly curved, gently arcuate, slightly protruding, with an obtuse, somewhat upturned apex. Anal ring 0.17 mm long, extending over almost 1/4 of the length of dorsal plate.

Male described by YANG (1984).

HOST PLANT

Senecio nemorensis from Compositeae (YANG 1984, HODKINSON 1986) and *Senecio taiwanensis* from Compositeae (HODKINSON 1983, 1986).

DISTRIBUTION

Taiwan: Formosa (BOSELLI 1930, YANG 1984, HODKINSON 1983, 1986), the Far East: Sakhalin and the Kurile Islands (KONOVALOVA 1988, GEGEĆKORI & LOGINOV, 1990), Japan: Hokkaido (KONOVALOVA 1988).

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